

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Tkacz, Borys -FS
Sent: Thur 3/3/2016 3:38:13 PM
Subject: RE: Air Toxics and Moss Sampling in SE Portland

Sorry, I try not to look at my iPhone after dinner. I will try to reach you between 12-12:45. Is this the best number: 206-553-2143?



Borys Tkacz
Assistant Director for Research
Forest Service

Pacific Northwest Research Station

p: 503-808-2115

c: 503-867-0570

f: 503-808-2130

btkacz@fs.fed.us

1220 SW Third Ave., Suite 1400

Portland, OR 97204

www.fs.fed.us



Caring for the land and serving people

From: McClintock, Katie [mailto:McClintock.Katie@epa.gov]
Sent: Wednesday, March 02, 2016 7:03 PM
To: Tkacz, Borys -FS <btkacz@fs.fed.us>
Subject: Re: Air Toxics and Moss Sampling in SE Portland

It looks like you work off hours too. I also work evenings if you prefer. I could talk tonight around 8:30. Up to you. 206-553-2143. Tomorrow 12-12:45 will work.

Katie

Sent from my iPhone

On Mar 2, 2016, at 6:52 PM, Tkacz, Borys -FS <btkacz@fs.fed.us> wrote:

I'm in a meeting tomorrow morning but will try to reach you between 12 and 12:45.

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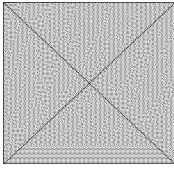
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From: Tkacz, Borys -FS
Sent: Wednesday, March 02, 2016 3:53 PM
To: 'Kubo, Teresa' <Kubo.Teresa@epa.gov>
Cc: McClintock, Katie <McClintock.Katie@epa.gov>; Smith, Judy <Smith.Judy@epa.gov>
Subject: RE: Air Toxics and Moss Sampling in SE Portland

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Caring for the land and serving people

From: Kubo, Teresa [<mailto:Kubo.Teresa@epa.gov>]
Sent: Wednesday, March 02, 2016 12:40 PM
To: Tkacz, Borys -FS <btkacz@fs.fed.us>

Cc: McClintock, Katie <McClintock.Katie@epa.gov>; Smith, Judy
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Best regards,

Teresa

Teresa Kubo

Environmental Review and Sediment Management

US EPA Oregon Operations

805 SW Broadway, Ste 500

Portland, Oregon 97205

Tel. 503-326-2859

From: Smith, Judy
Sent: Friday, February 26, 2016 3:57 PM
To: gdonovan@fs.fed.us

Cc: Watkins, Tim; Wayland, Richard; Landers, Dixon
Subject: Air Toxics and Moss Sampling in SE Portland

Hi Geoff –

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| Dixon Landers | landers.dixon@epa.gov | 541-754-4427 |

Here is the link to the Oregon Department of Environmental Quality Website that provides some background: <http://www.deq.state.or.us/nwr/metalsemissions.htm>

Judy

~~~~~

Judy Smith, EPA

Public Affairs Specialist

503-326-6994 desk

503-545-2540 cell

~~~~~

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To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Smith, Judy
Sent: Thur 3/3/2016 4:14:29 AM
Subject: Fw: Metals Release - Media Monitoring Report 03.02.16
Media Monitoring Report Metal Release 03.02.2016.docx

From: BLACK Julie <julie.black@state.or.us>

Sent: Wednesday, March 2, 2016 11:20 AM

To: Aaron Corvin; BORISENKO Aaron; Andy Fridley (afridley@pps.net); Andrea Hamberg; Anna Richter Taylor; Sherry Brett W; Gutelius Bruce J; GRABHAM Cheryl; Christine Miles (cmiles@pps.net); YOUNG Collette M; Courtney Westling (cwestling@pps.net); Brown Danielle Y; CARDONA David; Farrer David G; Dreher David M; MONRO David; David Hobbs (dhobbs@pps.net); Gebbie Eric N; GOLDFARB Gabriela * GOV; Jae Douglas; Carlson Jeffrey A; FLYNT Jennifer; Jennifer Vines; HIGH Jere; Vandehey Jeremy; Jon Isaacs (jisaacs@pps.net); Joanne Fuller; Hines Jonas; Modie Jonathan N; BLACK Julie; SIFUENTES Julie; Julie Sullivan-Springhetti; HEDBERG Katrina; Keith Johnson; GRAINGER Kristen * GOV; Hansen Kristina L; FELDON Leah; Shirley Lillian; Loreen Nichols; Tony Magliano (magliano@pps.net); DANAB Marcia; OLIPHANT Margaret; Matt Hoffman; Matt Davis; Michael Zollitsch; HARRYMAN Mike; MAY Nick; DECONCINI Nina; MASON Palmer; Paul Lewis; Cieslak Paul R; SEIDEL Paul; WOLF-MCCORMICK Penny L * DCBS; PHP DUTY-OFFICER; Rachel Banks; Rob Mangold (rmangold@fs.fed.us); Robin Holm; Sara Hottman; ARMITAGE Sarah; Smith, Judy; Schubert Stacey S; Ringsage Stephanie B; LANGSTON Sue; WICKSTROM Susan D; Tracy Enbysk (tenbysk@pps.net); Noe Timothy D; Tricia Tillman; Uei LEI - Multnomah County Health Department (uei.lei@multco.us); Yasmeen Sands; Zach Klonoski

Subject: Metals Release - Media Monitoring Report 03.02.16

The media monitoring report for the previous 24 hours is attached.

Julie Black, Ed.M.

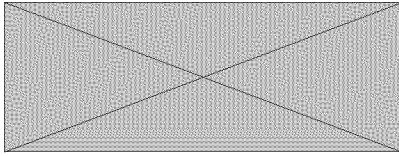
All Hazards Planner

Public Health Division

julie.black@state.or.us

Office# 971-673-0706

Cell# 971-888-3358



CONFIDENTIALITY NOTICE

This email may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have received this email in error, please advise me immediately by reply email, keep the contents confidential, and immediately delete the message and any attachments from your system.

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Tkacz, Borys -FS
Sent: Thur 3/3/2016 2:52:44 AM
Subject: Re: Air Toxics and Moss Sampling in SE Portland

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Borys Tkacz
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805 SW Broadway, Ste 500

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Tel. 503-326-2859

From: Smith, Judy
Sent: Friday, February 26, 2016 3:57 PM
To: gdonovan@fs.fed.us
Cc: Watkins, Tim; Wayland, Richard; Landers, Dixon
Subject: Air Toxics and Moss Sampling in SE Portland

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Judy

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From: Tkacz, Borys -FS
Sent: Wed 3/2/2016 11:56:06 PM
Subject: FW: Air Toxics and Moss Sampling in SE Portland

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Cc: McClintock, Katie <McClintock.Katie@epa.gov>; Smith, Judy <Smith.Judy@epa.gov>

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To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Kubo, Teresa
Sent: Wed 3/2/2016 8:51:57 PM
Subject: RE: Air Toxics and Moss Sampling in SE Portland

Hi Katie –

No – I'm not involved at all on the air toxics stuff. I work on forestry issues and talk to PNW in that context once a month. I'm pleased to make your acquaintance via email and I wish you all the best as you move forward on these issues.

Take care,

Teresa

Teresa Kubo

Environmental Review and Sediment Management

US EPA Oregon Operations

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Tel. 503-326-2859

From: McClintock, Katie
Sent: Wednesday, March 02, 2016 12:48 PM
To: Kubo, Teresa <Kubo.Teresa@epa.gov>
Subject: RE: Air Toxics and Moss Sampling in SE Portland

Hi Teresa –

Thanks for getting back to them. I don't think we have spoken before. Are you involved in this effort? Should I be adding you to any of our contact lists or including you on FOIA responses?

From: Kubo, Teresa
Sent: Wednesday, March 02, 2016 12:40 PM
To: Tkacz, Borys -FS <btkacz@fs.fed.us>
Cc: McClintock, Katie <McClintock.Katie@epa.gov>; Smith, Judy <Smith.Judy@epa.gov>
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To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Narvaez, Madonna
Sent: Wed 3/2/2016 7:08:39 PM
Subject: RE: Portland glass facilities

A call, because I'm beginning to get worried about the 9+ facility paperwork reduction act thing.

From: McClintock, Katie
Sent: Wednesday, March 02, 2016 11:06 AM
To: Narvaez, Madonna <Narvaez.Madonna@epa.gov>
Subject: RE: Portland glass facilities

No, I have not received it. Let me ask for it.

From: Narvaez, Madonna
Sent: Wednesday, March 02, 2016 11:05 AM
To: McClintock, Katie <McClintock.Katie@epa.gov>
Subject: RE: Portland glass facilities

Is the OR list on the OneDrive?

From: McClintock, Katie
Sent: Wednesday, March 02, 2016 11:04 AM
To: Narvaez, Madonna <Narvaez.Madonna@epa.gov>
Subject: RE: Portland glass facilities

My list is the 3 big ones: Bullseye, Spectrum, Uroboros

The 4 borisillicate: Trautman Art Glass, Northstar Glass, Glass Alchemy and Momka's Glass

Other leads that are probably smaller: Fremont Antique Glass, Glassy Baby

OR has a much more comprehensive list that might show other sources as well.

Katie

From: Narvaez, Madonna
Sent: Wednesday, March 02, 2016 10:29 AM
To: McClintock, Katie <McClintock.Katie@epa.gov>
Subject: FW: Portland glass facilities

Katie, I didn't realize that we're supposed to give input as well. I thought it was just the other regions. Do you have other potential facilities that you haven't mentioned in the daily updates? I'll go through them to pick out the R10 facilities that may not be on the OAQPS list. Thanks!

From: Hastings, Janis
Sent: Friday, February 26, 2016 4:54 PM
To: Dossett, Donald <Dossett.Donald@epa.gov>
Cc: Narvaez, Madonna <Narvaez.Madonna@epa.gov>; Bray, Dave <Bray.Dave@epa.gov>; Edmondson, Lucy <Edmondson.Lucy@epa.gov>
Subject: FW: Portland glass facilities

Don, would Madonna be the appropriate person to coordinate our response for Region 10? Due date: March 9.

Also, could you reach out to Ecology's air permits manager? I already had a discussion with Stu Clark over a week ago about Spectrum, so he is already generally aware of the issue. I left him a voicemail today to let him know that we would be contacting his permitting staff for information.

Attached is EPA's current desk statement, which you are welcome to share with Ecology. Also, the following ODEQ summary may be useful to forward, if your state contacts are unaware of

the issue: <http://www.deq.state.or.us/nwr/docs/metalsem/FSDEQAdressingAirToxics.pdf>.
ODEQ is providing regular updates and technical information on the Portland Metals website at <http://www.deq.state.or.us/nwr/metalsemissions.htm>.

Thanks,

Jan

From: McCabe, Janet

Sent: Thursday, February 25, 2016 4:09 PM

To: Air Division Directors and Deputies <Air_Division_Directors_and_Deputies@epa.gov>

Cc: Koerber, Mike <Koerber.Mike@epa.gov>; Page, Steve <Page.Steve@epa.gov>; Giles-AA, Cynthia <Giles-AA.Cynthia@epa.gov>; McLerran, Dennis <mclerran.dennis@epa.gov>; Hastings, Janis <Hastings.Janis@epa.gov>; Stewart, Lori <Stewart.Lori@epa.gov>; Goffman, Joseph <Goffman.Joseph@epa.gov>; Cyran, Carissa <Cyran.Carissa@epa.gov>; Wortman, Eric <Wortman.Eric@epa.gov>

Subject: Portland glass facilities

Air Division Directors—

Attached is a memo in followup to the special purpose call OAQPS held yesterday about the glass facilities in Portland and beyond. Please contact Mike Koerber if you have any questions.

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Narvaez, Madonna
Sent: Wed 3/2/2016 7:07:12 PM
Subject: RE: Portland glass facilities

Thanks. I'm wondering if we should have a call with our state and locals, too, about this. Janet McCabe's letter request is public now.

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Sent: Wednesday, March 02, 2016 11:06 AM
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Sent: Friday, February 26, 2016 4:54 PM
To: Dossett, Donald <Dossett.Donald@epa.gov>
Cc: Narvaez, Madonna <Narvaez.Madonna@epa.gov>; Bray, Dave <Bray.Dave@epa.gov>; Edmondson, Lucy <Edmondson.Lucy@epa.gov>
Subject: FW: Portland glass facilities

Don, would Madonna be the appropriate person to coordinate our response for Region 10? Due date: March 9.

Also, could you reach out to Ecology's air permits manager? I already had a discussion with Stu Clark over a week ago about Spectrum, so he is already generally aware of the issue. I left him a voicemail today to let him know that we would be contacting his permitting staff for information.

Attached is EPA's current desk statement, which you are welcome to share with Ecology. Also,

the following ODEQ summary may be useful to forward, if your state contacts are unaware of the issue: <http://www.deq.state.or.us/nwr/docs/metalsem/FSDEQAdressingAirToxics.pdf>. ODEQ is providing regular updates and technical information on the Portland Metals website at <http://www.deq.state.or.us/nwr/metalsemissions.htm>.

Thanks,

Jan

From: McCabe, Janet

Sent: Thursday, February 25, 2016 4:09 PM

To: Air Division Directors and Deputies <Air_Division_Directors_and_Deputies@epa.gov>

Cc: Koerber, Mike <Koerber.Mike@epa.gov>; Page, Steve <Page.Steve@epa.gov>; Giles-AA, Cynthia <Giles-AA.Cynthia@epa.gov>; McLerran, Dennis <mclerran.dennis@epa.gov>; Hastings, Janis <Hastings.Janis@epa.gov>; Stewart, Lori <Stewart.Lori@epa.gov>; Goffman, Joseph <Goffman.Joseph@epa.gov>; Cyran, Carissa <Cyran.Carissa@epa.gov>; Wortman, Eric <Wortman.Eric@epa.gov>

Subject: Portland glass facilities

Air Division Directors—

Attached is a memo in followup to the special purpose call OAQPS held yesterday about the glass facilities in Portland and beyond. Please contact Mike Koerber if you have any questions.

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Narvaez, Madonna
Sent: Wed 3/2/2016 7:05:03 PM
Subject: RE: Portland glass facilities

Is the OR list on the OneDrive?

From: McClintock, Katie
Sent: Wednesday, March 02, 2016 11:04 AM
To: Narvaez, Madonna <Narvaez.Madonna@epa.gov>
Subject: RE: Portland glass facilities

My list is the 3 big ones: Bullseye, Spectrum, Uroboros

The 4 borosilicate: Trautman Art Glass, Northstar Glass, Glass Alchemy and Momka's Glass

Other leads that are probably smaller: Fremont Antique Glass, Glassy Baby

OR has a much more comprehensive list that might show other sources as well.

Katie

From: Narvaez, Madonna
Sent: Wednesday, March 02, 2016 10:29 AM
To: McClintock, Katie <McClintock.Katie@epa.gov>
Subject: FW: Portland glass facilities

Katie, I didn't realize that we're supposed to give input as well. I thought it was just the other regions. Do you have other potential facilities that you haven't mentioned in the daily updates? I'll go through them to pick out the R10 facilities that may not be on the OAQPS list. Thanks!

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To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Narvaez, Madonna
Sent: Wed 3/2/2016 6:29:07 PM
Subject: FW: Portland glass facilities
Memo from Janet McCabe on Art Glass Manf. emissions feb25.pdf
Desk Statement -- glass manufacturing facilities v2.docx

Katie, I didn't realize that we're supposed to give input as well. I thought it was just the other regions. Do you have other potential facilities that you haven't mentioned in the daily updates? I'll go through them to pick out the R10 facilities that may not be on the OAQPS list. Thanks!

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Subject: Portland glass facilities

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 25 2016

OFFICE OF
AIR AND RADIATION

MEMORANDUM

SUBJECT: Art Glass Manufacturing - Request for Regional Input

FROM: Janet G. McCabe *JGM*
Acting Assistant Administrator

TO: Regional Air Division Directors
Regions 1-10

I am writing to make you aware of an air toxics situation that has been taking place in Region 10 and ask your assistance as we work to understand the national implications of this situation. In this memo, I am summarizing the situational background and the ways in which EPA is supporting Oregon to respond. I hope you were able to attend yesterday's special purpose call and have a better understanding of the situation on the ground in Portland. My specific asks of you moving forward are to, by March 9, 2016:

1. Provide any information you currently have about the sources we've identified (attached), and if you are aware of any additional art (or colored) glass manufacturing facilities not on this list.
2. Communicate with your states to:
 - a. ensure they are aware of the issues associated with these sources in Oregon;
 - b. offer your assistance in determining whether there are similar emissions of concern associated with these sources; and
 - c. request your states provide any information they have about these sources.
3. Let me know if your Region has special expertise in this type of facility or control of these types of pollutants.

Background

The U.S. Forest Service (USFS), in a pilot study, found moss collected from trees around art glass manufacturers in the Portland area—and Bullseye Glass in particular—had much higher concentrations of heavy metals than other areas in the city. This result prompted the Oregon Department of Environmental Quality (ODEQ) to set up air monitoring systems near the company to collect 24-hour air samples every few days over a 30-day period in October 2015.

In early February, ODEQ made publicly available the results of that air monitoring, which showed high levels of cadmium and arsenic in the air and began investigating potential sources. Preliminary work suggests that the metals found in the monitoring were coming in large part from Bullseye Glass, an art glass manufacturing facility. Elevated cadmium levels were also found in proximity to another Portland glass manufacturer, Uroboros Glass. Both companies have suspended the use of chromium and

cadmium; Bullseye, which also used arsenic, has suspended its use. ODEQ has provided a summary at <http://www.deq.state.or.us/nwr/docs/metalsem/FSDEQAdressingAirToxics.pdf>, and they are providing regular updates and technical information on the Portland Metals website at <http://www.deq.state.or.us/nwr/metalsemissions.htm>.

OAQPS has identified 14 other similar facilities, which, like Bullseye and Uroboros, may manufacture art glass and may use raw metals in their processes. A Clean Air Act National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 63, Subpart SSSSSS) for glass manufacturing area sources has been in effect since 2007. This rule applies to continuous furnaces that produce 50 tons or more of glass per year using any amount of toxic metals in the glass recipe. As noted below, one area of investigation is the applicability of Part 63, Subpart SSSSSS to these and similar facilities.

EPA Assistance

The EPA has been fully engaged to support Oregon and others as this situation has developed, including supporting efforts to identify all art glass producers that might have similar issues and all other sources of metals emissions in Oregon.

In Region 10:

- Staff and management are working closely with state partners to provide significant assistance to ODEQ and the Oregon Health Authority (OHA). Oregon has set up an incident command structure for managing this issue, and the Region 10 Operations Office in Portland is part of the team, helping to coordinate EPA's assistance as a part of the state's ongoing work.
- EPA Region 10's focus has been on supporting Oregon to work directly with impacted facilities and to provide assistance in the development of air and soil sampling programs. Two weeks ago, EPA Region 10 enforcement staff, including an expert on glass manufacturing facilities, conducted a joint inspection with ODEQ of the Bullseye Glass Company and an EPA inspection of Uroboros Glass. The EPA subsequently inspected Spectrum Glass in Washington State and conducted a joint inspection with ODEQ of Northstar Glassworks in Portland. The EPA's engineers and technical specialists from across the country¹ have participated in subsequent technical meetings with ODEQ and Bullseye Glass to provide guidance on analytical methods to characterize the sources and information on technologies available to control emissions from glass manufacturing facilities. We have supported Oregon in their actions to secure agreements from the companies to stop using the compounds that are associated with the toxic emissions found in the air monitoring until other solutions can be developed. ODEQ and OHA have been very proactive in their efforts to identify risks to the public from air toxics and in response to this specific situation.
- For the assessment of impacts, EPA Region 10 has loaned air monitoring equipment and provided supplies to ODEQ for collection of air samples to analyze for heavy metals. The EPA has also loaned ODEQ equipment to analyze soil samples and offered access to one of the EPA's science and technical assistance contractors. The EPA air and cleanup staff have offered assistance in the development of air and soil sampling programs. In addition, the EPA risk assessors stand ready to

¹ Region 10 added experts to our team from Region 7, which has worked extensively with the development of the Wool Fiberglass Rule to determine and address hexavalent chromium emissions in EJ neighborhoods. Also, OAQPS' Measurement Technology Group is providing guidance and information on hexavalent chromium emissions measurement methods. The National Risk Management Laboratory has provided background materials on chromium reactions at high temperatures.

work with the OHA, Multnomah County Health Department, and the Agency for Toxics Substances and Disease Registry to help assess and communicate the public health risks using the limited data currently available and to refine the assessment as more information becomes available on concentrations of metals in the air and soil.

At Headquarters:

- Relevant experts from the Office of Air Quality Planning and Standards (OAQPS) and the Office of Research and Development (ORD) are providing technical support to Region 10 on source testing, health impacts of air toxics levels and other monitoring and impacts issues as they arise.
- The Office of Enforcement and Compliance Assistance (OECA), the Office of General Counsel (OGC) and OAQPS are jointly investigating the applicability of Part 63, Subpart SSSSSS to these and similar facilities nationally.
- OECA and Region 10 have also discussed potential use of authority under Clean Air Act Section 114 to request additional information from facilities nationwide.
- OAQPS is working to improve our characterizations of emissions from art glass manufacturing facilities.
- OAQPS and ORD are collaborating to assess the viability of the original USFS study as a screening methodology for air toxics and review screening modeling by state of Washington. This will help determine whether this modeling can be applied to other art glass manufacturing facilities.
- OAQPS is also considering the feasibility of using the Community Scale Air Toxics Ambient Monitoring funds (FY16) to reimburse the ODEQ for Portland monitoring and conduct new monitoring around other plants.

We will keep you posted on these activities and look forward to receiving additional information from you as requested above. If you or your states have questions, please contact Mike Koerber in OAQPS.

Attachment

| Company Name | Street Address | Region | City | State | Zip | Phone | Notes |
|------------------------------------|----------------------------------|--------|---------------|-------|-------|--------------|----------------------------------|
| 1 Steuben | One Museum Way | 2 | Corning | NY | 14830 | 607 937-5371 | fabricator? |
| 2 Blenko Glass | 9 Bill Blenko Dr. | 3 | Milton | WV | 25541 | 304 743-9081 | |
| 3 Youghiogheny Glass | 300 S 1st Street | 3 | Connellsville | PA | 15425 | 724 628-3000 | |
| 4 Wissmach Glass | 420 Stephen St. | 3 | Paden City | WV | 26159 | 304 337-2253 | |
| 5 Fenton Glass | 700 Elizabeth St | 3 | Williamstown | WV | 26187 | 304 375-6122 | closed but permitted |
| 6 Armstrong Glass | 55 Chastain Road NW | 4 | Kennesaw | GA | 30144 | 770 919-9924 | |
| 7 Origin Glass (Elan Technologies) | 169 Elan Court | 4 | Midway | GA | 31320 | 912 880-3526 | |
| 8 Parramore Glass | PO BOX 2777 | 4 | Asheville | NC | 28802 | 828 456-4414 | |
| 9 Franklin glass | 222 East Sycamore St | 5 | Columbus | OH | 43206 | 614 221-2972 | |
| 10 Kokomo Glass | 1310 S. Market St. | 5 | Kokomo | IN | 46902 | 765 457-8136 | |
| 11 Pacific Art Glass | 125 West 157th St | 9 | Gardena | CA | 90248 | 310 780-4047 | fabricator? |
| 12 Uroboros Glass | 2139 N. Kerby Ave. SE | 10 | Portland | OR | 97227 | 503 284-4900 | |
| 13 Spectrum Glass | 21415 87th Avenue SE | 10 | Woodinville | WA | 98072 | 425 483-6699 | |
| 14 Bullseye glass | 3722 SE 21st Ave | 10 | Portland | OR | 97202 | 503 232-8887 | |
| 15 System 96 | 24105 Snohomish-Woodinville Road | 10 | Woodinville | WA | 98072 | 425 483-6699 | fabricator? |
| 16 Northstar Glassworks | 8228 SE 26th Place | 10 | Portland | OR | 97202 | 866 684-6986 | makes colored borosilicate glass |
| 17 Trautman Art glass | | 10 | Portland | OR | | | |
| 18 Glass Alchemy | | 10 | Portland | OR | | | |
| 19 Momka's Glass | 19580 23rd Avenue NE | 10 | Arlington | WA | 98223 | 425 776-3417 | |

Desk Statement regarding certain glass manufacturing facilities

High levels of air toxics were monitored in the air near two art glass manufacturing facilities in Portland, Oregon. The EPA has been working closely with Oregon officials to further understand the emissions and the risk to the public, if any and to work to reduce any risk to the public. As a precaution, the EPA has also requested its Regional Offices to gather information to better understand similar art glass manufacturing plants across the country – e.g., locations, air emissions, pollution controls, business operations, etc. Our current information indicates that there are fewer than 20 art glass manufacturing plants nationwide with significant emissions levels. Further understanding of these facilities will inform what actions we take to ensure compliance with existing regulations as well as to review and, if necessary, revise the current federal emission standards to ensure these plants operate in an environmentally safe manner.

To: McClintock, Katie[McClintock.Katie@epa.gov]; Dubose, Dick[DuBose.Dick@epa.gov]
From: Taylor, Kevin
Sent: Wed 3/2/2016 5:03:06 PM
Subject: RE: Please Call Us About Stained Glass

Katie,

Thank you so much for taking the time to scan and send it. I know that your plate is full right now and I appreciate your time and consideration. I will let you know how it goes tomorrow when you are available next week.

Thanks again.

Sincerely,



Kevin I. Taylor

Environmental Engineer

U.S. EPA Region 4

Air Enforcement Section, 12th Floor

61 Forsyth Street, S.W.

Atlanta, Georgia 30303

(404) 562-9134

(404) 562-9163 (fax)

Email: taylor.kevin@epa.gov

From: McClintock, Katie

Sent: Wednesday, March 02, 2016 11:49 AM
To: Dubose, Dick <DuBose.Dick@epa.gov>
Cc: Taylor, Kevin <Taylor.Kevin@epa.gov>
Subject: RE: Please Call Us About Stained Glass

It the interest of getting you something soon rather than nothing too late, I am just scanning in my inspection questions from bullseye (asked similar things at all 3) and the written questions I left for each facility.

I apologize that this will take some processing on your part but fear that I won't have the time to synthesize everything.

Katie

Note – we have a lot of FOIAs. So preserve documents.

From: Dubose, Dick
Sent: Wednesday, March 02, 2016 7:43 AM
To: McClintock, Katie <McClintock.Katie@epa.gov>
Cc: Taylor, Kevin <Taylor.Kevin@epa.gov>
Subject: Please Call Us About Stained Glass

Katie:

Can you call me at 404-562-9168 or Kevin Taylor at 404-562-9134.

Thank you,

Dick DuBose

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Smith, Judy
Sent: Wed 3/2/2016 1:14:31 AM
Subject: Fw: Community Engagement Group

FYI - The official notes will follow.

From: Andrea HAMBERG <andrea.hamberg@multco.us>
Sent: Tuesday, March 1, 2016 5:07 PM
To: SIFUENTES Julie; Tricia TILLMAN; Julie SULLIVAN-SPRINGHETTI; Smith, Judy
Cc: GRABHAM Cheryl; Christensen Kari A; Matt HOFFMAN
Subject: Re: Community Engagement Group

notes from our conversation today. Matt and I will type up and clean up. Send me comments/questions/edits.

We'll start outlining the plan based on the priority level from the prioritization chart.
(Decision tree?)

Draft engagement goals

- have an environmental justice lens (for whole response)
- be responsive to community requests
- clearly explain moss data, data limitations, and health risks
- refute misinformation
- help relieve stress and uncertainty
- use good risk communication
- provide information so people can take steps to reduce risk for themselves and their families
- improve people's trust in government
- protect and inform those who are most vulnerable
- provide information in culturally-specific and multiple languages
- make sure future assessments are informed by community priorities and concerns
- provide forums for people outside of the direct impact areas to get elegant information
- proactive in informing people about monitoring and assessment
- Proactive in inviting people to participate
- explain the process, so people can civically engage in the DEQ rule making process
- capture the energy around this issue

Possible actions

Advisory group

Translation of key documents

Video, radio, in-person education to reach folks with limited English proficiency

Updated FAQ

Social media

Utilize email list to reach most activated folks
Existing newsletters: neighborhoods, school newspapers
Use oni/pps to share information
Master gardeners
Visual/infographics
Have community advisory groups for OHA/ehap
Establish partnership agreements with pps
Have one central website?
Asking our elected a to host a community meeting/town hall/listen to community concerns/listening sessions/focus groups
Take advantage of community meetings to make sure information is shared
Work with community leaders

Next steps

1) create a document that summarizes current information in clear simple language

What's the key information do we have right now?

Explain the current situation

Address misinformation

Explain known health risks

How to minimize risks in the meantime

Actions you could take

What we're (agencies) doing now and into the future

2) Develop a central list for engagement requests for unified command (Andrea will make a spreadsheet with the community, each request and when, what the response is, who responded, what priority given)

3) Finalize prioritization strategy (with technical staff) (Matt Hoffman)

Andrea

On Tuesday, March 1, 2016, SIFUENTES Julie <julie.sifuentes@state.or.us> wrote:

For everyone, we are on the 6th floor. Call me at 503-269-3689 if you need help finding it.

Sent from my iPad

On Mar 1, 2016, at 2:51 PM, GRABHAM Cheryl <cheryl.grabham@state.or.us> wrote:

I will be there at 3 and can stay until 5.

Cheryl Grabham

Regional Solutions Team Liaison, Portland Metro area

Oregon Department of Environmental Quality

700 NE Multnomah St., Suite #600

Portland, OR 97232

503-504-7906

From: Andrea HAMBERG [<mailto:andrea.hamberg@multco.us>]
Sent: Monday, February 29, 2016 4:10 PM
To: SIFUENTES Julie
Cc: GRABHAM Cheryl; CHRISTENSEN KARI A; Matt HOFFMAN
Subject: Re: Community Engagement Group

I can stay for 2 hours.

On Monday, February 29, 2016, Andrea HAMBERG
<andrea.hamberg@multco.us> wrote:

We'll come to you.

On Monday, February 29, 2016, SIFUENTES Julie
<julie.sifuentes@state.or.us> wrote:

Let's say 3pm. In person or call? We can host here and/ or set up a
conference line.

Sent from my iPad

> On Feb 29, 2016, at 2:59 PM, GRABHAM Cheryl
> <cheryl.grabham@state.or.us> wrote:
>
> Hi Julie,
> I will be at a meeting in Gresham until 1, so 2:30 or 3:00 would be preferable.
> Cheryl
>
>
>

> Cheryl Grabham
> Oregon Department of Environmental Quality
> Regional Solutions Team Representative, Portland Metro area
> 503-504-7906
>
>
> ----- Original message -----
> From: SIFUENTES Julie <julie.sifuentes@state.or.us>
> Date: 02/29/2016 2:33 PM (GMT-08:00)
> To: GRABHAM Cheryl <Cheryl.Grabham@state.or.us>, Andrea HAMBERG
<andrea.hamberg@multco.us>
> Cc: GRABHAM Cheryl <cheryl.grabham@state.or.us>, CHRISTENSEN
KARI A <kari.a.christensen@state.or.us>
> Subject: RE: Community Engagement Group
>
> Cheryl - what would you think about tentatively scheduling tomorrow at
2pm? If someone else from DEQ is going to be part of the group, we can
always reschedule...
>
> -----Original Message-----
> From: GRABHAM Cheryl [<mailto:cheryl.grabham@state.or.us>]
> Sent: Monday, February 29, 2016 2:28 PM
> To: SIFUENTES Julie <Julie.SIFUENTES@dhsosha.state.or.us>; Andrea
HAMBERG <andrea.hamberg@multco.us>
> Cc: GRABHAM Cheryl <Cheryl.Grabham@state.or.us>; Christensen Kari A
<KARI.A.CHRISTENSEN@dhsosha.state.or.us>
> Subject: RE: Community Engagement Group
>
> Hi Julie,
> I need to confirm with Nina what my role will be in community engagement
moving forward. She will be back in town tomorrow so I will get clarity and
circle back with you as soon as possible.
> Cheryl
>
>
>
> Cheryl Grabham
> Oregon Department of Environmental Quality Regional Solutions Team
Representative, Portland Metro area
> 503-504-7906
>
>
> ----- Original message -----
> From: SIFUENTES Julie <julie.sifuentes@state.or.us>
> Date: 02/29/2016 2:08 PM (GMT-08:00)
> To: Andrea HAMBERG <andrea.hamberg@multco.us>
> Cc: GRABHAM Cheryl <cheryl.grabham@state.or.us>, CHRISTENSEN

KARI A <kari.a.christensen@state.or.us>

> Subject: RE: Community Engagement Group

>

> I will forward you the e-mail thread with People's. I think it is a really good option.

>

> Looking at Kari's and my calendars, tomorrow afternoon from 2-4pm, we are open.

>

> How about you, Cheryl?

>

>

>

> From: Andrea HAMBERG [<mailto:andrea.hamberg@multco.us>]

> Sent: Monday, February 29, 2016 2:03 PM

> To: SIFUENTES Julie <Julie.SIFUENTES@dhsoba.state.or.us>

> Cc: GRABHAM Cheryl <Cheryl.Grabham@state.or.us>; Christensen Kari A <KARI.A.CHRISTENSEN@dhsoba.state.or.us>

> Subject: Re: Community Engagement Group

>

> I think the people's market is an interesting idea. But you may want to check out what they have posted on their website...

>

> <http://www.peoples.coop/blog/2016/2/10/air-quality-concerns-in-our-neighborhood>

>

> I was also thinking Master Gardeners; I think it's an excellent idea.

>

> How about tomorrow or Thursday afternoon? I'm free between 1 and 4 each day.

>

> Andrea

>

> On Monday, February 29, 2016, SIFUENTES Julie

<julie.sifuentes@state.or.us<<mailto:julie.sifuentes@state.or.us>>> wrote:

> Hi all – My favorite people in the same group! ☺ .

>

> I want to propose to this group a way to have some face to face with folks in the community, in particular to address concerns and questions about gardening. There's a farmer's market every Wednesday in the area near Bullseye (Tibbets and 21st). I think we should have a table there with a few people each week who can provide the latest information and listen to people's questions and concerns. I have been talking with someone (an env engineer) who has been trying hard to provide scientific information to his neighbors, and he has provided information on this issue for a community-run table there. Because next week we will be releasing data and messaging in SE, I suggest that we try and get something set up in SE by next Wednesday. (He gave me

contact information for the coordinator. Andrea – maybe you know already since it is People's).

>

> Not sure if farmer's markets are the best way to go in N. Portland, but showing up and being available in the community on a regular basis is so important. Data and messaging for N. Portland won't be ready until early April, but we could be providing pertinent information on gardening there any time next week or later.

>

> Kari has had a great idea about engaging master gardeners. I'm sure you both have other really good ideas and feedback. Andrea – were you thinking about setting up a call/meeting for this group soon? I know there are a lot of big decisions that will help steer community engagement priorities; I hope in the meantime we can move forward on some simple stuff that I think could really benefit the community.

>

> Julie

>

>

>

>

>

>

>

> Julie Early Sifuentes

> Program Manager

> Environmental Public Health Section

> Public Health Division

> T: 971-673-0438<<tel:971-673-0438>>

>

>

> [cid:image001.jpg@01D10D96.C6B9DCE0]

>

> CONFIDENTIALITY NOTICE

> This email may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have received this email in error, please advise me immediately by reply email, keep the contents confidential, and immediately delete the message and any attachments from your system.

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Andrea Hamberg

Program Supervisor

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multco.us/health/healthy-homes

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Smith, Judy
Sent: Tue 3/1/2016 11:27:52 PM
Subject: Fw: Metals Release - Media Monitoring Report 03.01.16
Media Monitoring Report Metal Release 03.01.2016.docx

Here is today's media monitoring. I've been in a non-air meeting all day, so I haven't had the opportunity to put this on the share drive. Judy

From: BLACK Julie <julie.black@state.or.us>
Sent: Tuesday, March 1, 2016 1:41 PM
To: Aaron Corvin; BORISENKO Aaron; Andrea Hamberg; Anna Richter Taylor; Sherry Brett W; Gutelius Bruce J; GRABHAM Cheryl; YOUNG Collette M; Brown Danielle Y; CARDONA David; Farrer David G; Dreher David M; MONRO David; Gebbie Eric N; GOLDFARB Gabriela * GOV; Jae Douglas; Carlson Jeffrey A; FLYNT Jennifer; Jennifer Vines; HIGH Jere; Vandehey Jeremy; Joanne Fuller; Hines Jonas; Modie Jonathan N; BLACK Julie; SIFUENTES Julie; Julie Sullivan-Springhetti; HEDBERG Katrina; Keith Johnson; GRAINGER Kristen * GOV; Hansen Kristina L; FELDON Leah; Shirley Lillian; Loreen Nichols; DANAB Marcia; Matt Hoffman; Matt Davis; Michael Zollitsch; HARRYMAN Mike; DECONCINI Nina; Paul Lewis; Cieslak Paul R; WOLF-MCCORMICK Penny L * DCBS; PHP DUTY-OFFICER; Lewis Priscilla M; Rachel Banks; Sara Hottman; ARMITAGE Sarah; Smith, Judy; Schubert Stacey S; Ringsage Stephanie B; LANGSTON Sue; WICKSTROM Susan D; Noe Timothy D; Tricia Tillman; Yasmeen Sands
Subject: Metals Release - Media Monitoring Report 03.01.16

The media monitoring report for the previous 24 hours is attached.

Julie Black, Ed.M.

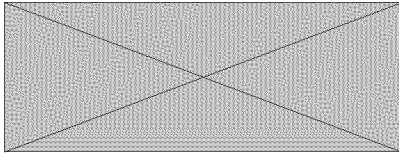
All Hazards Planner

Public Health Division

julie.black@state.or.us

Office# 971-673-0706

Cell# 971-888-3358



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To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Singelis, Nikos
Sent: Tue 3/1/2016 10:23:15 PM
Subject: RE: McClintock, Katie has shared 'Colored Glass'

Oops.... Sorry, it got lots in today's landslide!

Got it ☺

From: McClintock, Katie
Sent: Tuesday, March 01, 2016 5:22 PM
To: Singelis, Nikos <Singelis.Nikos@epa.gov>
Subject: FW: McClintock, Katie has shared 'Colored Glass'

Did you get this earlier?

From: McClintock, Katie
Sent: Tuesday, March 01, 2016 9:24 AM
To: Chow, Alice <chow.alice@epa.gov>; Singelis, Nikos <Singelis.Nikos@epa.gov>
Cc: McClintock, Katie <McClintock.Katie@epa.gov>
Subject: McClintock, Katie has shared 'Colored Glass'

Here's the folder that McClintock, Katie shared with you.

Go to [Colored Glass](#)

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Singelis, Nikos
Sent: Tue 3/1/2016 10:20:19 PM
Subject: RE: Article from Yesterday on Bullseye Glass

Katie,

Did you send me the info on the one drive?

Nikos

From: McClintock, Katie
Sent: Tuesday, March 01, 2016 5:12 PM
To: Singelis, Nikos <Singelis.Nikos@epa.gov>
Subject: RE: Article from Yesterday on Bullseye Glass

Yeah, these are great articles. If you haven't checkout out our onedrive we have a press folder and a news clips folder that has daily news roundups with a bunch of great articles. My daily updates are in their own folder as well which gives a lot of background on our work.

From: Singelis, Nikos
Sent: Tuesday, March 01, 2016 2:10 PM
To: Chow, Alice <chow.alice@epa.gov>; Arnold, David <arnold.david@epa.gov>; Egan, Patrick <egan.patrick@epa.gov>; Campbell, Dave <campbell.dave@epa.gov>; McClintock, Katie <McClintock.Katie@epa.gov>; Maldonado, Zelma <Maldonado.Zelma@epa.gov>; Fernandez, Cristina <Fernandez.Cristina@epa.gov>
Subject: RE: Article from Yesterday on Bullseye Glass

Here's another one, which you should read.... FYI

http://www.oregonlive.com/environment/index.ssf/2016/02/how_bullseye_glass_sought_a_ke.html

From: Singelis, Nikos

Sent: Tuesday, March 01, 2016 4:33 PM

To: Chow, Alice <chow.alice@epa.gov>; Arnold, David <arnold.david@epa.gov>; Egan, Patrick <egan.patrick@epa.gov>; Campbell, Dave <campbell.dave@epa.gov>; McClintock, Katie <McClintock.Katie@epa.gov>; Maldonado, Zelma <Maldonado.Zelma@epa.gov>; Fernandez, Cristina <Fernandez.Cristina@epa.gov>

Subject: Article from Yesterday on Bullseye Glass

<http://www.opb.org/news/article/complaints-about-bullseye-glass-date-back-to-1980s/>

Nikos

Nikos Singelis

Acting Director, Air Protection Division

EPA, Region 3

Philadelphia, PA

(215) 814-2132

To: Chow, Alice[chow.alice@epa.gov]; Arnold, David[arnold.david@epa.gov]; Egan, Patrick[egan.patrick@epa.gov]; Campbell, Dave[campbell.dave@epa.gov]; McClintock, Katie[McClintock.Katie@epa.gov]; Maldonado, Zelma[Maldonado.Zelma@epa.gov]; Fernandez, Cristina[Fernandez.Cristina@epa.gov]
From: Singelis, Nikos
Sent: Tue 3/1/2016 10:09:49 PM
Subject: RE: Article from Yesterday on Bullseye Glass

Here's another one, which you should read.... FYI

http://www.oregonlive.com/environment/index.ssf/2016/02/how_bullseye_glass_sought_a_ke.html

From: Singelis, Nikos
Sent: Tuesday, March 01, 2016 4:33 PM
To: Chow, Alice <chow.alice@epa.gov>; Arnold, David <arnold.david@epa.gov>; Egan, Patrick <egan.patrick@epa.gov>; Campbell, Dave <campbell.dave@epa.gov>; McClintock, Katie <McClintock.Katie@epa.gov>; Maldonado, Zelma <Maldonado.Zelma@epa.gov>; Fernandez, Cristina <Fernandez.Cristina@epa.gov>
Subject: Article from Yesterday on Bullseye Glass

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To: Chow, Alice[chow.alice@epa.gov]; Arnold, David[arnold.david@epa.gov]; Egan, Patrick[egan.patrick@epa.gov]; Campbell, Dave[campbell.dave@epa.gov]; McClintock, Katie[McClintock.Katie@epa.gov]; Maldonado, Zelma[Maldonado.Zelma@epa.gov]; Fernandez, Cristina[Fernandez.Cristina@epa.gov]
From: Singelis, Nikos
Sent: Tue 3/1/2016 9:33:15 PM
Subject: Article from Yesterday on Bullseye Glass

<http://www.opb.org/news/article/complaints-about-bullseye-glass-date-back-to-1980s/>

Nikos

Nikos Singelis

Acting Director, Air Protection Division

EPA, Region 3

Philadelphia, PA

(215) 814-2132

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Chow, Alice
Sent: Tue 3/1/2016 5:53:11 PM
Subject: RE: My draft email to APMs

Thanks!

Alice H. Chow

Associate Director

Office of Air Monitoring and Analysis

U.S. EPA, Region III

1650 Arch Street

Philadelphia, PA 19103

Phone: 215-814-2144

Email: chow.alice@epa.gov

From: McClintock, Katie
Sent: Tuesday, March 01, 2016 12:52 PM
To: Chow, Alice <chow.alice@epa.gov>
Subject: RE: My draft email to APMs

My only change would be to say chrome 3 MAY convert because they are firing in a reducing atmosphere which will decrease probability (though not eliminate) of it converting to chrome 6.

From: Chow, Alice

Sent: Tuesday, March 01, 2016 9:51 AM
To: McClintock, Katie <McClintock.Katie@epa.gov>
Subject: My draft email to APMs

Katie: let me know if I've missed something. Alice

Hi! On the ADD call yesterday, R3 volunteered to coordinate the submission of information on art glass facilities listed in Janet McCabe's memo (see attachment). Also, if there are additional sources not on the list, please add that to your regional response. That being said, as you talk to your S/L/Ts, you can use the following to help them better identify the facilities:

- ☐ ☐ ☐ ☐ ☐ ☐ The art, architectural, or colored glass manufacturing facilities of concern are those who melt raw materials (metals) to make their glass, this gives them more control over the colors produced. The facilities would have large distribution of their products.
- ☐ ☐ ☐ ☐ ☐ ☐ Those who are hobby and crafts glass blowers typically buy colored glass to melt down for their projects and due to its small size, are not part of the inquiries at this time.
- ☐ ☐ ☐ ☐ ☐ ☐ EPA is looking for facilities with uncontrolled furnace emissions. There is currently one facility (Spectrum) with a baghouse as a control.
- ☐ ☐ ☐ ☐ ☐ ☐ Arsenic and cadmium are of concern, but so is hexavalent chrome...in fact, chrome+3 converts to chrome+6 in the presence of manganese and high heat.

When you have compiled the requested information, please send it to me by COB, Tuesday, March 8th. I will forward all responses to Mike Koerber on March 9th. I know this may be a tough turnaround, but we told Mike we'd try our best.

For those who are interested in obtaining monitoring data and other technical information, Katie McClintock, R10 (McClintock.Katie@epa.gov) has created a shared drive site and she also provides daily email updates. Please email her to get access to the shared drive site and/or receive daily updates.

Alice H. Chow

Associate Director

Office of Air Monitoring and Analysis

U.S. EPA, Region III

1650 Arch Street

Philadelphia, PA 19103

Phone: 215-814-2144

Email: chow.alice@epa.gov

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Chow, Alice
Sent: Tue 3/1/2016 5:50:31 PM
Subject: My draft email to APMs

Katie: let me know if I've missed something. Alice

Hi! On the ADD call yesterday, R3 volunteered to coordinate the submission of information on art glass facilities listed in Janet McCabe's memo (see attachment). Also, if there are additional sources not on the list, please add that to your regional response. That being said, as you talk to your S/L/Ts, you can use the following to help them better identify the facilities:

- The art, architectural, or colored glass manufacturing facilities of concern are those who melt raw materials (metals) to make their glass, this gives them more control over the colors produced. The facilities would have large distribution of their products.
- Those who are hobby and crafts glass blowers typically buy colored glass to melt down for their projects and due to its small size, are not part of the inquiries at this time.
- EPA is looking for facilities with uncontrolled furnace emissions. There is currently one facility (Spectrum) with a baghouse as a control.
- Arsenic and cadmium are of concern, but so is hexavalent chrome...in fact, chrome+3 converts to chrome+6 in the presence of manganese and high heat.

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Phone: 215-814-2144

Email: chow.alice@epa.gov

RESPONDING TO ELEVATED METAL EMISSIONS INTO AIR FROM COLORED GLASS MANUFACTURERS

ISSUE AND POLICY IMPACT BRIEF

This brief summarizes high profile activities that ATSDR's cooperative agreement partner, Oregon Health Authority (OHA), is conducting in response to elevated level of metals in air from art glass manufacturers in the Portland area. The findings may be relevant to similar sites in other states as well as changes in the state and federal air permitting process.

Oregon Department of Environmental Quality (OR DEQ), in collaboration with the US Forest Service, identified art glass manufacturers as a new source of metals in air. OHA concluded that levels of some metals in air may contribute to chronic and possibly acute health effects for nearby residents and day care children. However, more data are needed. Because of lack of controls on this type of small industry emitter, the State of Oregon is beginning to consider changes in legislation to address the problem. EPA's Air Program in Region 10 and EPA Headquarters are also starting to consider changes in permitting for this industry. Consequently, other similar facilities may be affected in other states as well.

Issue Overview

Over the past few years, US Forest Service collected and measured metals in moss samples on trees throughout the Portland, Oregon area. After identifying areas with high concentrations of cadmium and arsenic in moss, OR DEQ directed a 30-day ambient air sampling study adjacent to Bullseye Glass Company, an art glass manufacturer. Sampling consisted of 24-hour air collection on PM₁₀ filters every other day (18 samples total) during October 2015. Previous air sampling in Portland area showed October to have higher pollutant concentrations in thus OR DEQ felt this would be a worst-case data set. US Forest Service modeled area cadmium air levels using moss and these limited air data (Figure 1). This approach is still under development and may not be representative of annual concentrations.

At the request of OR DEQ, OHA evaluated the October 2015 levels of metals (As, Cd, Cr, Ni, Pb, Se, Be, Mn) in air. Levels of arsenic and cadmium during this time are shown in Figures 2 and 3. OHA concluded these air levels were above chronic and close to acute health-based benchmark standards. The levels released from the operations indicate that exposures could be impacting the health of nearby residents, gardeners, schools, child care facility, and workers. Chromium emissions are also of concern.

Figure 1. Modeling of air cadmium levels using city-wide moss data and limited air data near Bullseye Glass Company, Portland Oregon, October 2015 (Source: US Forest Service)

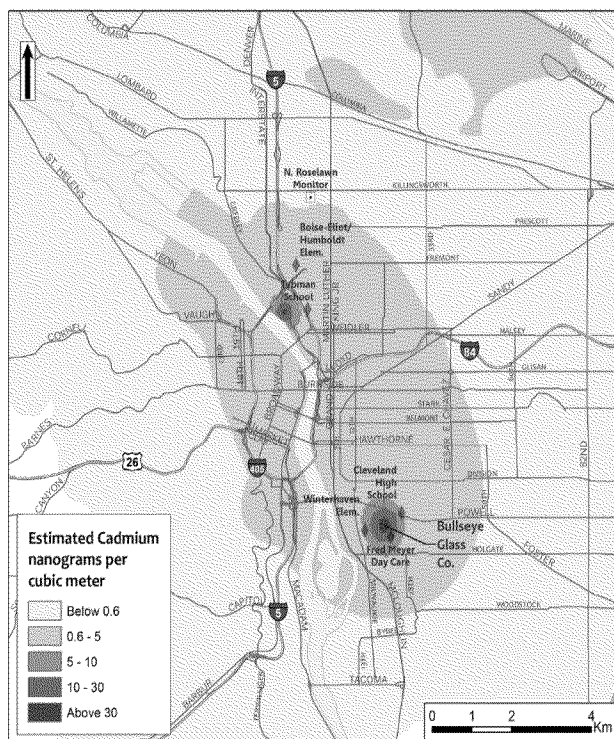


Figure 2. Arsenic Levels in air (ng/m3) near Bullseye Glass Company, Portland Oregon (October 2015)

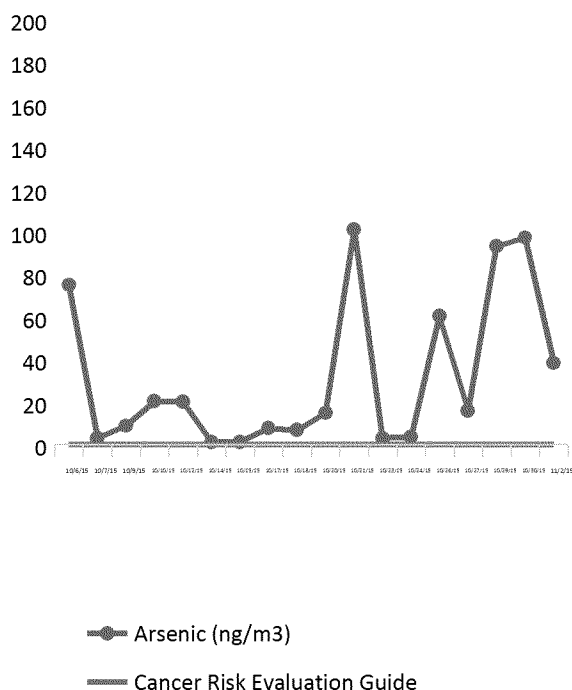
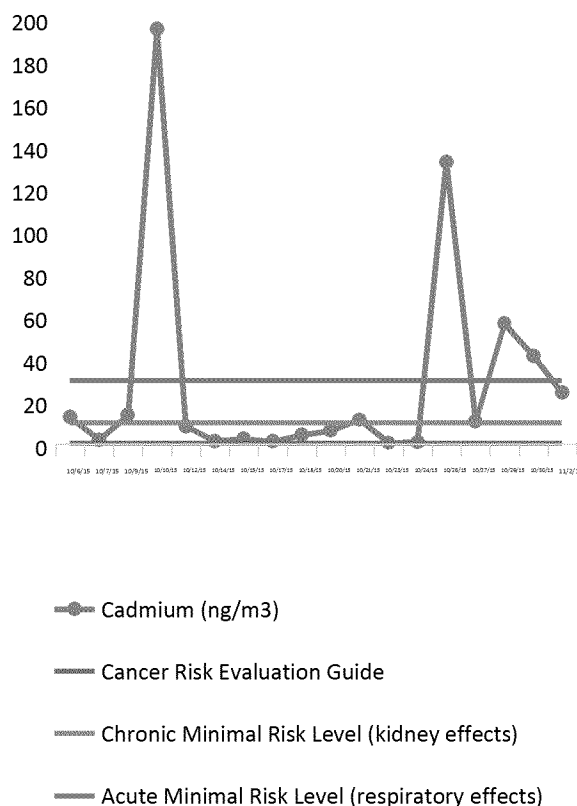


Figure 3. Cadmium levels in air (ng/m3) near Bullseye Glass Company, Portland, Oregon (October 2015)



Bullseye Glass Company and Uroboros Glass

Both Bullseye and Uroboros glass manufacturers are in compliance with their air permits under OR DEQ. Both temporarily volunteered to stop using cadmium- and chromium-based pigments. Bullseye volunteered to stop using arsenic-based pigments; Uroboros has not used arsenic-based pigments for many years. Bullseye and Uroboros are located at the center of the areas with elevated Cadmium indicated on Figure 1. These facilities are considering a change in process, but will likely begin using these pigments again. OR DEQ is working with EPA to evaluate the processes that are resulting in emissions.

Bullseye is located in an industrial/residential mixed area. It is near a major rail yard and other industries such as clothing manufacturers (e.g., kilts, socks), a cement aggregate transfer facility, coffee roaster, gourmet caterer, auto body and repair shops, a city park, child-care facility, and a Fred Meyer superstore corporate headquarters. Of importance is the proximity of the childcare to Bullseye (~750 feet). In early February, the facility, Kindercare Child Care Learning Center, completed a 'deep clean' of the interior and power washed their playground. They collected indoor and outdoor air samples as well as soil samples (results unknown).

Uroboros is also located in an industrial area in close proximity to interstate highway 5 (I-5). Multnomah County Health Department states that this northeast community has the highest number of African Americans in the County which experience the greatest number of disparities with the highest level of concern relative to other communities of color. Just on the other side of I-5 is Harriet Tubman Middle School, one of Portland's Public Schools. EPA deployed air monitors at this school in both 2009 and 2011 to monitor ambient air pollutants

including metals.¹ EPA detected nickel, manganese, and cadmium and concluded that levels of cadmium measured in between May – July in 2011 continued to be influenced by nearby sources. The concentrations at that time and the long-term estimates did not indicate a potential health concern for long-term continuous exposures and ceased monitoring efforts.

Current Sampling by OR DEQ

- Nearby meteorological station (location unknown at this time)
- Bullseye: Four air monitoring stations around Bullseye, one in each direction, including at the day care facility. 12-hour daytime samples for two weeks measuring for the same metals plus a few more, including hexavalent chromium.
- Bullseye: Soil samples surrounding the facility (n=72) have been collected and are being analyzed for metals, including speciated chromium
- Uroboros: Air monitoring stations near this facility were deployed week of February 19, 2016 to analyze the same metals; number, duration and location are unknown.
- Uroboros: Soil sampling surrounding the facility has been completed and are currently be analyzed for metals, including speciated chromium.

Biomonitoring

OHA is not currently recommending biomonitoring. However, the high visibility of the issue has raised many concerns and individuals have contacted their physicians for metals testing. OHA has invoked a temporary rule mandating that physicians and labs report cadmium levels to the state. OHA developed physician guidance in collaboration with physicians from Oregon Poison Center (OPC) and the UW PEHSU. The state recently invoked a temporary rule mandating physicians to report urinary cadmium results to the state. At this time, no guidance is available to the public in terms of interpretation. Physicians are encouraged to reach out to OPC and PEHSU for interpretation. OPC has received over 200 calls. PEHSU has received over 60 calls. At this time, no one has required further testing. There is some concern about interpreting urinary cadmium data for young children and people with existing kidney disease.

Cancer Cluster Analysis

OHA performed a cancer cluster analysis in the area of the Bullseye facility. OHA reviewed the Oregon State Cancer Registry for cancers developed between 2009 and 2013. Cancers investigated include lung and bladder cancers, which are associated with inhalation of high levels of arsenic or cadmium. Initial analysis indicates that based on available cancer data there is no increase in rates of either lung or bladder cancer among residents of the SE Portland area where cadmium and arsenic were elevated.

Community Outreach and Media Coverage

This issue has very high visibility in the Portland area. Response and outreach on the issues are as follows:

- The media received October data at same time as OR DEQ which pushed the response for messaging.
- OHA's webpage: <http://public.health.oregon.gov/newsadvisories/Pages/metals-emissions.aspx>. To adapt to the amount of work this has generated, OHA has activated its Emergency Operations Center (EOC).
- OR DEQ's webpage: <http://www.deq.state.or.us/nwr/metalsemissions.htm>

¹ <http://www3.epa.gov/air/sat/HarrietTub.html>

- OHA hosted a meeting 2/4 with Kindercare Children's Creative Learning Center with approximately 175 parents. OR DEQ and Multnomah Health Department were present. ATSDR regional staff attended the meeting and recorded questions and answers for OHA.
- Multnomah County Health hosted a public meeting on 2/9. OHA, DEQ, and US Forest Service presented. Over 750 people attended including elected officials. Focus was on ability of OR DEQ to change the permit restrictions. All the facilities are working within their permits.
- Multnomah County Health hosted an availability session and a public meeting on 2/18 at the Harriet Tubman Middle School near the Uroboros facility. US Forest Service, DEQ, OHA, and the county answered questions. ATSDR participated in the availability session.
- Numerous media stories have been generated around this work.

EPA Activities

EPA Region 10 is working and inspecting with OR DEQ in understanding the permitting changes that are needed. They have been investigating both small and large operations. There is another large facility in Woodinville WA (northeast of Seattle), which they have inspected (along with ATSDR regional personnel).

EPA Region 10 in collaboration with EPA headquarters is heading a task force to better understand the chemistry behind the emissions, the deficiencies in the regulations of the Clean Air Act, and the extent of the problem nationwide. They are looking at smaller operations as well as major operations nationwide.

There are seven major art glass manufacturing facilities in the US (Figure 4) These include:

- Bullseye Glass Company, Portland, OR
- Uroboros Glass, Portland, OR
- Spectrum Glass Company, Woodinville, WA
- Kokomo Opalescent Glass, Kokomo, IN
- The Paul Wissmach Glass, Paden City, WV
- Youghiogheny Opalescent Glass, Connellsville, PA
- Armstrong Glass, Kennesaw, GA

Figure 4. Location of major colored glass facilities in the US



Potential Policy Impacts

State Policy Issues

- Governor of Oregon has requested that OHA make funds available for urine testing individuals if they want it.
- OR DEQ is working with EPA to figure out how regulations and implementation of the Clean Air Act could change to cover art glass emitters.
- OHA has activated its EOC to respond to public requests and elected officials' inquiries.
- Bullseye is acting independently to figure out the problem and potentially change processes. .
- EPA Air Program in Region 10 is engaged, especially because there are there are other art glass manufacturers in the northwest, which is home to the artistic glass movement started by Dale Chihuly.

EPA has notified Puget Sound Clean Air Agency to begin addressing potential emissions from Spectrum Glass Company in Woodinville, WA.

- EPA and the US Forest Service met with Oregon Senators Wyden, Merkley, and Congressman Baumann on 2/18/2016.

Permitting

Oregon is grappling with how to improve the permit process to prevent the emissions. Under the Clean Air Act, EPA has set National Ambient Air Quality Standards (NAAQS) for six principal pollutants called “criteria” pollutants. EPA does not have NAAQS for other pollutants including the metals of concern for these facilities. The Clean Air Act established a number of permitting programs to carry out the goals of the act; the state environmental agencies, OR DEQ in this case, implement these programs.

A review of existing information shows that Bullseye Glass Company has been operating in compliance under an Air Contaminant Discharge Permit¹ issued by the OR DEQ since 2004. None of the applicable standards or rules detailed in the Bullseye Air Contaminant Discharge Permit require actual sampling of emissions from the facility but instead are based on self-report of the production process, the amount and type of specific materials used in production, and the pollution prevention strategies used to reduce emissions.

EPA issues rules for sources or source categories that have the potential to emit Hazardous Air Pollutants (HAP) under the National Emission Standards for Hazardous Air Pollutants (NESHAP). Additional permitting is needed for “major” sources that have 10 tons per year of one hazardous air pollutant or 25 tons of total hazardous pollutants. These glass facilities do not currently meet this threshold. Additional use of Section 303 of the Clean Air Act may be put into play if the source is found to cause and “imminent and substantial endangerment” to an area regardless of existing rules. EPA is discussing if they need to revise the implementation of the Clean Air Act. Current permitting covers controls on dust emissions from the mixing process but not from the heating or crushing processes.

There are two rules under the Clean Air Act that specifically apply to glass manufacturers

- Arsenic emissions must be controlled if a facility emits less than 2.5 tons per year for an older furnace or 0.44 tons per year for a newer furnace. Bullseye was below the old furnace threshold. EPA is looking into whether or not they are subject to new furnace thresholds. Arsenic pigments can be reformulated to avoid these emission thresholds. Uroboros is already using a different formulation. Other facilities across the country will have a mix of emission levels and pigments in use. Overall compliance with this limit may be relatively easy to achieve. (Part 61 Subpart N)
- Facilities that have “continuous operation” are subject to an area source rule that covers all metals from glass manufacturing. At this time these facilities were not considered to be in “continuous operating” mode (Part 63 Subpart SSSSSS). EPA is looking into this with more scrutiny.

Toxic Release Inventory Reporting

The Toxics Substances Control Act (TSCA) chemical substance inventory contains all existing chemical substances manufactured, processed, or imported in the US that do not qualify for an exemption. These facilities appear to be exempt from reporting their production/use at this time. However, EPA is reviewing these criteria for art glass manufacturing facilities. Since the late 2000’s EPA Region 10 office lost its TSCA compliance enforcement capabilities when EPA pulled back resources to headquarters. There may be some disconnect and

underreporting by these types of facilities in Region 10. A facility must report Toxics Release Inventory (TRI) values if the following criteria are met:

- 1) the facility has North American Industry Classification System (NAICS) codes cited in the Clean Air Act rule;
- 2) the facility has 10 or more full time employees;
- 3) the facility manufactures, processes, or uses any listed chemical in quantities over a certain threshold in a calendar year; threshold is different based on whether or not it is produced or used and whether or not it is a persistent, bioaccumulative, or toxic.

Safe child-care siting

As noted above, Kindercare Child Care Learning Center is located within 200 meters of the facility. The location of this child care facility is also next to the largest rail yard in Portland as well as other industrial sources. This is a good example of bad zoning and warrants some investigation into Oregon's capability to review the establishment of child care centers in safe locations.

Current Status

- OHA ATSDR cooperative agreement is temporarily understaffed with two members of their team on extended leave and a vacancy in the principal investigator position. Most of the work has been done by the primary OHA toxicologist (a previous member of the ATSDR coop).
- ATSDR regional staff are available to OHA for technical assistance.
- Senators and Congressman from Oregon have asked for CDC/ATSDR/EPA assistance.
- There is a lack of public information on how to interpret some biomonitoring results.
- There is political pressure for OHA and OR DEQ to report out quickly with results.

Next Steps

- ATSDR HQ will continue to provide technical assistance. Please contact Michelle Watters 312-353-2979 aax6@cdc.gov
- ATSDR regional office will continue to provide technical assistance. Please contact Rhonda Kaetzel, 206-553-0530, vnc2@cdc.gov
- PEHSU may quickly become overwhelmed and needs to be well coordinated with OHA activities. ATSDR regional office has a meeting set up with PEHSU staff the first week of March to ensure they are able to provide consistent support to OHA.

References

ATSDR. 2012. Toxicological Profile for Cadmium. <http://www.atsdr.cdc.gov/ToxProfiles/tp5.pdf>

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http://www.atsdr.cdc.gov/toxprofiles/Arsenic_addendum.pdf

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<https://multco.us/file/47115/download>

OHA, OR DEQ & Multnomah County. Portland Metal Exposures: Interim Clinical Update (February 18, 2016)
<http://public.health.oregon.gov/newsadvisories/Documents/se-portland-metals-emissions-physician->

[guidance.pdf](#)

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<http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Cancer/oscar/Documents/se-portland-cadmium-arsenic-report-2009-2013.pdf>

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<http://public.health.oregon.gov/newsadvisories/Documents/02-23-2016-oha-testimony-air-toxics.pdf>

OR DEQ. 2016. Air data quality near 22nd and Powell.

<http://www.deq.state.or.us/nwr/docs/PowellSE22nddata.pdf>

OR DEQ. 2016. Timeline for Portland Metals Investigation. February 14, 2016.

<http://www.deq.state.or.us/nwr/docs/metalsem/PortlandMetalsTimeline.pdf>

US EPA. 2009. Assessing Outdoor Air near Schools – Air Monitoring Initiative

<http://www3.epa.gov/air/sat/index.html>

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Throwe, Scott
Sent: Tue 3/1/2016 12:37:28 PM
Subject: RE: McClintock, Katie has shared 'Colored Glass'

I got in thanks!

Scott Throwe

U.S. EPA

Office of Enforcement and Compliance Assurance

Office of Compliance

Phone: 202-564-7013

From: McClintock, Katie
Sent: Monday, February 29, 2016 10:22 PM
To: Throwe, Scott <Throwe.Scott@epa.gov>
Subject: RE: McClintock, Katie has shared 'Colored Glass'

You were added. That is how you got the email. I checked the permissions and you are on. Did it ever work for you? I haven't heard of anyone else having trouble getting in but maybe we reached some sort of maximum?

From: Throwe, Scott
Sent: Monday, February 29, 2016 12:15 PM
To: McClintock, Katie <McClintock.Katie@epa.gov>
Subject: RE: McClintock, Katie has shared 'Colored Glass'

Its saying access denied, do I have to be added to the share point access list?

Scott Throwe

U.S. EPA

Office of Enforcement and Compliance Assurance

Office of Compliance

Phone: 202-564-7013

From: McClintock, Katie

Sent: Monday, February 29, 2016 1:02 PM

To: Yellin, Patrick <Yellin.Patrick@epa.gov>; Throwe, Scott <Throwe.Scott@epa.gov>

Cc: McClintock, Katie <McClintock.Katie@epa.gov>

Subject: McClintock, Katie has shared 'Colored Glass'

Here's the folder that McClintock, Katie shared with you.

Go to [Colored Glass](#)

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Abe Fleishman
Sent: Tue 3/1/2016 4:10:37 AM
Subject: Re: book names

Chemical approach to glass by milos volf. The book might be hard to get. I will look tomorrow and see if I can loan you my copy. I also reached out to Alexis at Alfred to get the case study on cadmium glasses. Has anyone asked bullseye or uroboros about their knowledge? This is information we all know about. If you look up us patents there is some info as well.

Abe

On Feb 29, 2016, at 7:49 PM, McClintock, Katie <McClintock.Katie@epa.gov> wrote:

Hi Abe –

Thanks for the call today. I wasn't able to find those books you mentioned. I might have not written them down right. Can you email me the titles when you get a chance.

Katie McClintock

Air Enforcement Officer

EPA Region 10

1200 Sixth Avenue, Suite 900, OCE-101

Seattle, WA 98101

Phone: 206-553-2143

Fax: 206-553-4743

Mcclintock.katie@epa.gov

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Smith, Judy
Sent: Mon 2/29/2016 9:33:09 PM
Subject: FW: Metals Release - Media Monitoring Report 02.29.16
[Media Monitoring Report Metal Release 02.29.2016.docx](#)

Hi Katie - Here is today's media monitoring report. Judy

Subject: Metals Release - Media Monitoring Report 02.29.16

The media monitoring report for the previous 72 hours is attached.

Julie Black, Ed.M.

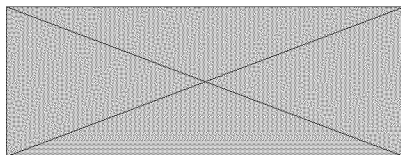
All Hazards Planner

Public Health Division

julie.black@state.or.us

Office# 971-673-0706

Cell# 971-888-3358



CONFIDENTIALITY NOTICE

This email may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have

received this email in error, please advise me immediately by reply email, keep the contents confidential, and immediately delete the message and any attachments from your system.

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Throwe, Scott
Sent: Mon 2/29/2016 8:14:46 PM
Subject: RE: McClintock, Katie has shared 'Colored Glass'

Its saying access denied, do I have to be added to the share point access list?

Scott Throwe

U.S. EPA

Office of Enforcement and Compliance Assurance

Office of Compliance

Phone: 202-564-7013

From: McClintock, Katie
Sent: Monday, February 29, 2016 1:02 PM
To: Yellin, Patrick <Yellin.Patrick@epa.gov>; Throwe, Scott <Throwe.Scott@epa.gov>
Cc: McClintock, Katie <McClintock.Katie@epa.gov>
Subject: McClintock, Katie has shared 'Colored Glass'

Here's the folder that McClintock, Katie shared with you.

Go to [Colored Glass](#)

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Koprowski, Paul
Sent: Mon 2/29/2016 5:03:25 PM
Subject: RE: Update

No. I've been more focused on coordinating sampling needs between Wally, Chris and Anthony. I've not heard from Dave or George but was going to give them a call today to see what's up.

Paul

Paul Koprowski
U.S. EPA; Oregon Operations Office
805 SW Broadway, Suite 500
Portland, Oregon 97205
(503) 326-6363

-----Original Message-----

From: McClintock, Katie
Sent: Monday, February 29, 2016 6:55 AM
To: Koprowski, Paul <Koprowski.Paul@epa.gov>
Subject: Update

Have you heard from or on what has been happening with bullseye? I haven't talked to George or Dave since we were there Monday. I left messages Thursday and Friday.

Katie

Sent from my iPhone

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Elleman, Robert
Sent: Fri 2/26/2016 4:54:07 PM
Subject: RE: Met station

Indeed, it was already on my list of things to do, even before the OPB article (which Chris Swab sent to me this morning, too) and your email. It will probably have to wait until next week since I'm booked on an interview panel for much of the day today.

-----Original Message-----

From: McClintock, Katie
Sent: Friday, February 26, 2016 7:37 AM
To: Elleman, Robert <Elleman.Robert@epa.gov>
Subject: Met station

I just read in an opb article that they have installed a met station near bullseye. Would you feel comfortable reaching out to Anthony or Chris to get a little more info and let me know if you think the data will be useful?

Katie

Sent from my iPhone

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Elleman, Robert
Sent: Sat 2/20/2016 2:50:48 AM
Subject: RE:

I got the Portland Airport data for that time period. There is a surprising lack of meteorological stations in Portland. The airport is not a good indicator of winds at Bullseye but it does tell us the weather conditions at the time and then we could use relationships to extrapolate to Bullseye. Just from the Portland data there isn't much consistent about the two spiky days (5th and 24th, if my memory is correct) about the weather. Both were warm days with downslope winds in the morning and some sea breeze flow in the afternoon. I think the monitor was NW of Bullseye?... I'll need some education.

ODEQ has wind data from SE Lafayette and N Kirby. Chris Hall is getting me all the data ODEQ has put into the EPA database. But their deadline isn't until March 31 for that data, so it might not be there yet. I sent a request to Anthony and Phil for the data from those two sites as well as whatever else they had going last October. Considering the lack of good data from traditional sources, the ODEQ met data will be key.

I can also search the citizen weather network. That is very hit or miss in terms of quality because it's Joe Schmoes putting up a weather station in their back yards, but sometimes you get lucky with someone who is savvy, diligent, and happens to live away from wind obstructions... like trees.

More on Monday. You can tell me which days are perplexing you and we can get into the data.

From: McClintock, Katie
Sent: Friday, February 19, 2016 9:35 AM
To: Elleman, Robert <Elleman.Robert@epa.gov>
Subject:

Katie McClintock

Air Enforcement Officer

EPA Region 10

1200 Sixth Avenue, Suite 900, OCE-101

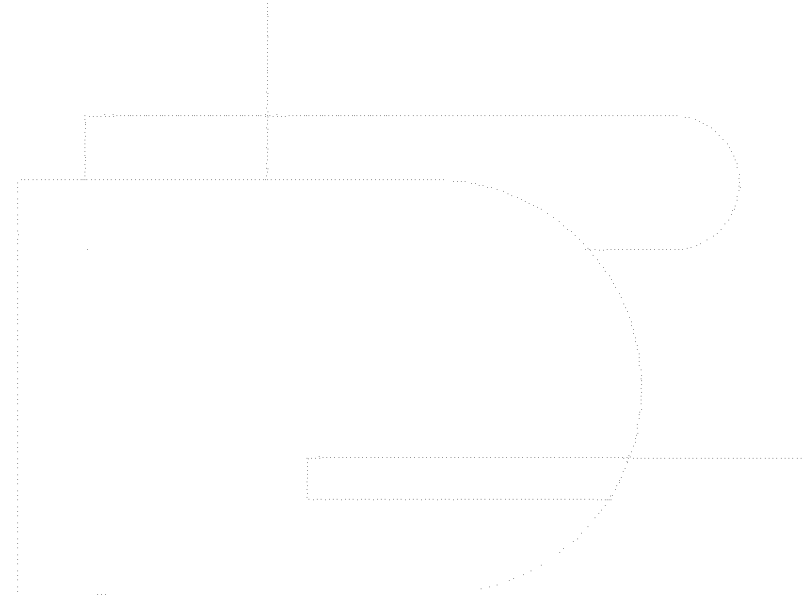
Seattle, WA 98101

Phone: 206-553-2143

Fax: 206-553-4743

Mcclintock.katie@epa.gov

To: McClintock, Katie[McClintock.Katie@epa.gov]
Cc: McCullough, Hugh[McCullough.Hugh@epa.gov]
From: Narvaez, Madonna
Sent: Tue 2/16/2016 8:58:27 PM
Subject: RE: do you know a hexavalent chromium expert in OAQPS?



Thanks!

From: McClintock, Katie
Sent: Tuesday, February 16, 2016 12:58 PM
To: Narvaez, Madonna <Narvaez.Madonna@epa.gov>
Cc: McCullough, Hugh <McCullough.Hugh@epa.gov>
Subject: RE: do you know a hexavalent chromium expert in OAQPS?

ccd

From: Narvaez, Madonna
Sent: Tuesday, February 16, 2016 12:46 PM
To: Johnson, Steffan <johnson.steffan@epa.gov>; Pope, Anne <Pope.Anne@epa.gov>
Cc: Fairchild, Susan <Fairchild.Susan@epa.gov>; Dewees, Jason <Dewees.Jason@epa.gov>;
Merrill, Raymond <Merrill.Raymond@epa.gov>; McClintock, Katie <McClintock.Katie@epa.gov>
Subject: RE: do you know a hexavalent chromium expert in OAQPS?

What is R7 Hugh's last name?

From: Johnson, Steffan
Sent: Tuesday, February 16, 2016 11:36 AM
To: Narvaez, Madonna <Narvaez.Madonna@epa.gov>; Pope, Anne <Pope.Anne@epa.gov>
Cc: Fairchild, Susan <Fairchild.Susan@epa.gov>; Dewees, Jason <Dewees.Jason@epa.gov>;
Merrill, Raymond <Merrill.Raymond@epa.gov>
Subject: RE: do you know a hexavalent chromium expert in OAQPS?

Madonna,

In my experience hexavalent forms of chromium are not stable when they are emitted from a source. In fact, EPA has put a good bit of effort into developing a test method designed specifically to capture hex-chrome compounds and keep them in hex form until analysis, as other chromium emissions test methods tend to let the chromium convert to trivalent forms. It is also my understanding (though certainly not the final word on the topic at all) that hex chrome emissions are likely to change state to trivalent chrome post-emission. I believe Jason DeWees and Ray Merrill of my group may also have information to add here, and so I am copying them on this e-mail.

The only reliable test approach that I know to quantify in-stack emissions of hex-chrome is to use a test method known as SW-846-0061. This method uses an alkaline reagent to trap hex-chrome and retain it in hexavalent form until the alkaline solution can be analyzed at a lab. The test method is a bit tricky, but if you need to know in-stack emissions we're certainly available to help you walk through development of a test protocol.

As to ambient sampling for hex chrome, I'll let Hugh in R7 tell you what he knows, my experience stops at the stack.

Please let us know if we can be of further assistance.

Stef

From: Narvaez, Madonna

Sent: Tuesday, February 16, 2016 12:26 PM
To: Pope, Anne <Pope.Anne@epa.gov>
Cc: Fairchild, Susan <Fairchild.Susan@epa.gov>; Johnson, Steffan <johnson.steffan@epa.gov>
Subject: do you know a hexavalent chromium expert in OAQPS?
Importance: High

Hi, Anne, Susan and Stef. Hope all is well. I don't know if you have heard about the colored glass manufacturer in Portland that DEQ discovered a cadmium hotspot around the facility. In the course of investigations, we discovered that the facility uses Cr+6 as a dry colorant for the glass. Ambient monitoring showed an average of 71.5 ng/m3 of total chromium. I don't know if Katie McClintock, the R10 enforcement contact has asked you for this information yet. If you can point us towards someone, we would really appreciate it. The company uses both Cr+3 and Cr+6, as well as cadmium and arsenic. In the next round of monitoring, the ODEQ will be monitoring for Cr+6 at the day care center, which is 220 meters from the facility. A cadmium hotspot was also detected close to the Harriet Tubman School. A much smaller colored glass mfg facility is close by.

•□□□□□□□ Katie McClintock did a cursory search for information on the conversion of trivalent chromium to hexavalent chromium and found little information, all of which was talking about smelting and coating. The research confirmed that the use of trivalent chromium alone can still produce hexavalent chromium, but found little data on the conversion rate under various circumstances. We need to develop or find an expert who can read more literature and help interpret the data we find in stack tests and ambient monitoring.

Thanks!

=====

Madonna Narvaez
Regional Air Toxics Coordinator
USEPA, Region 10
1200 Sixth Avenue, Ste 900

MC: AWT-150

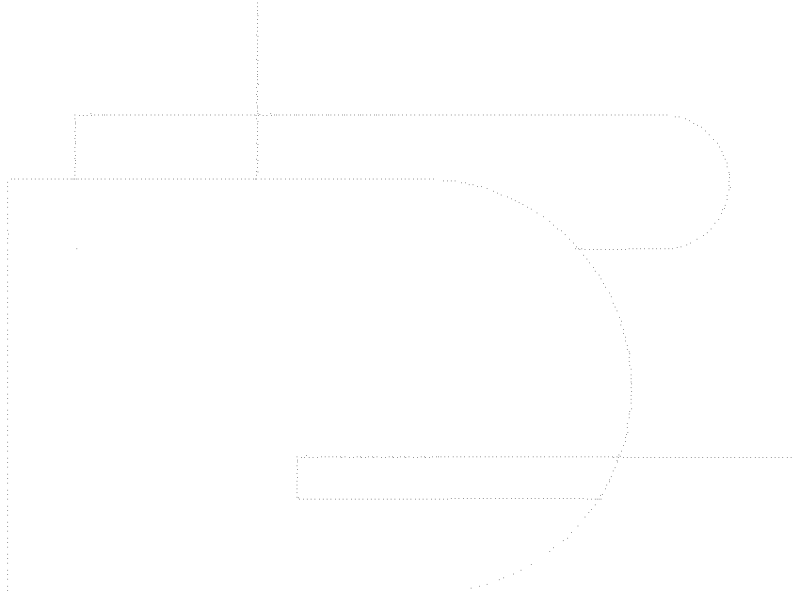
phone: 206-553-2117

fax: 206-553-0110

narvaez.madonna@epa.gov

Follow @EPAnorthwest on Twitter! <https://twitter.com/EPAnorthwest>

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Narvaez, Madonna
Sent: Tue 2/16/2016 8:44:27 PM
Subject: FW: do you know a hexavalent chromium expert in OAQPS?



From: Johnson, Steffan
Sent: Tuesday, February 16, 2016 11:36 AM
To: Narvaez, Madonna <Narvaez.Madonna@epa.gov>; Pope, Anne <Pope.Anne@epa.gov>
Cc: Fairchild, Susan <Fairchild.Susan@epa.gov>; Dewees, Jason <Dewees.Jason@epa.gov>; Merrill, Raymond <Merrill.Raymond@epa.gov>
Subject: RE: do you know a hexavalent chromium expert in OAQPS?

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interpret the data we find in stack tests and ambient monitoring.

Thanks!

=====

Madonna Narvaez

Regional Air Toxics Coordinator

USEPA, Region 10

1200 Sixth Avenue, Ste 900

MC: AWT-150

phone: 206-553-2117

fax: 206-553-0110

narvaez.madonna@epa.gov

Follow @EPAnorthwest on Twitter! <https://twitter.com/EPAnorthwest>

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Kaetzel, Rhonda
Sent: Tue 2/16/2016 6:19:38 PM
Subject: RE: Big color glass companies

Oh – and the names of the folks in DC...

--

Rhonda Kaetzel

Region 10 Director, ATSDR

206-553-0530 (office) 206-471-2443 (mobile)

vnc2@cdc.gov

From: McClintock, Katie
Sent: Tuesday, February 16, 2016 10:01 AM
To: Kaetzel, Rhonda <Kaetzel.Rhonda@epa.gov>
Subject: RE: Big color glass companies

Yes, I'm sorry, people keep calling and I can't get anything done! Haha. I'll try to multitask better.

Katie

From: Kaetzel, Rhonda
Sent: Tuesday, February 16, 2016 9:59 AM
To: McClintock, Katie <McClintock.Katie@epa.gov>
Subject: RE: Big color glass companies

Can you write short recap of TRI release issue and what permit they are adhering to and why there is a loophole?

--

Rhonda Kaetzel

Region 10 Director, ATSDR

206-553-0530 (office) 206-471-2443 (mobile)

vnc2@cdc.gov

From: McClintock, Katie

Sent: Tuesday, February 16, 2016 8:59 AM

To: Kaetzel, Rhonda <Kaetzel.Rhonda@epa.gov>

Subject: Big color glass companies

The Big Players in the Color Glass Industry:

- [REDACTED] Bullseye Glass Company – Portland, OR
- [REDACTED] Uroboros Glass – Portland, OR
- [REDACTED] Spectrum Glass Company – Woodinville, WA
 - o System 96 – Woodinville, WA (collab btwn spectrum and uroboros)
- [REDACTED] Kokomo Opalescent Glass – Kokomo, IN
- [REDACTED] The Paul Wissmach Glass Company – Paden City, WV
- [REDACTED] Youghiogheny Opalescent Glass company – Connellsville, PA
- [REDACTED] Armstrong Glass – Kennesaw, GA

Other information:

- [REDACTED] The concern here is ambient impacts at sustained high levels. As a result, the facility surroundings are important both in terms of residences but also schools where a larger population is spending many hours a day near the facilities.
 - o Bullseye, Kokomo, Youghiogheny, Armstrong – All in neighborhoods with very close houses. Bullseye is very close to schools. Haven't investigated others.

- Uroboros and Spectrum are a little farther from houses, but both are within a quarter mile of a school.
- Wissmach seems to be about a half mile from anything.



Katie McClintock

Air Enforcement Officer

EPA Region 10

1200 Sixth Avenue, Suite 900, OCE-101

Seattle, WA 98101

Phone: 206-553-2143

Fax: 206-553-4743

Mcclintock.katie@epa.gov

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Kaetzel, Rhonda
Sent: Tue 2/16/2016 6:17:10 PM
Subject: RE: Big color glass companies

Fair enough!

--

Rhonda Kaetzel

Region 10 Director, ATSDR

206-553-0530 (office) 206-471-2443 (mobile)

vnc2@cdc.gov

From: McClintock, Katie
Sent: Tuesday, February 16, 2016 10:01 AM
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206-553-0530 (office) 206-471-2443 (mobile)

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Seattle, WA 98101

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Mcclintock.katie@epa.gov

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Kaetzel, Rhonda
Sent: Tue 2/16/2016 5:59:22 PM
Subject: RE: Big color glass companies

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Rhonda Kaetzel

Region 10 Director, ATSDR

206-553-0530 (office) 206-471-2443 (mobile)

vnc2@cdc.gov

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Seattle, WA 98101

Phone: 206-553-2143

Fax: 206-553-4743

Mcclintock.katie@epa.gov

To: McClintock, Katie[McClintock.Katie@epa.gov]; Koprowski, Paul[Koprowski.Paul@epa.gov]
From: Narvaez, Madonna
Sent: Wed 2/10/2016 4:44:05 PM
Subject: RE: FYI- Sen. Wyden's staff considering a letter to EPA on Portland HAP issue

When you are at Bullseye today, can you ask them about their refractories? Are they chromium-lined? Susan says that in order to keep the furnaces from breaking down faster when they use oxygen-injection, they need to reline the refractories with something like chromium. From what Sarah has told me, there are stacks there, but can you confirm that? Also, have you talked to anyone else at PSCAA about Spectrum? Sarah has been talking to Erik Saganic, but she hasn't spoken with a compliance person or permit writer. Hopefully, they will let you take pictures. Thanks!

From: McClintock, Katie
Sent: Wednesday, February 10, 2016 8:33 AM
To: Narvaez, Madonna <Narvaez.Madonna@epa.gov>; Koprowski, Paul <Koprowski.Paul@epa.gov>
Subject: Re: FYI- Sen. Wyden's staff considering a letter to EPA on Portland HAP issue

Thanks Madonna. All very good questions. Do you need anything from me on any of this?

From: Narvaez, Madonna
Sent: Wednesday, February 10, 2016 8:27 AM
To: Koprowski, Paul; McClintock, Katie
Subject: FW: FYI- Sen. Wyden's staff considering a letter to EPA on Portland HAP issue

fyi

From: Davis, Matthew
Sent: Wednesday, February 10, 2016 8:24 AM
To: Niebling, William <Niebling.William@epa.gov>; Barnett, Keith <Barnett.Keith@epa.gov>; Terry, Sara <Terry.Sara@epa.gov>; Schuster, Cindy <Schuster.Cindy@epa.gov>; Narvaez, Madonna <Narvaez.Madonna@epa.gov>; Lubetsky, Jonathan <Lubetsky.Jonathan@epa.gov>; Hastings, Janis <Hastings.Janis@epa.gov>; Bray, Dave <Bray.Dave@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>; Tsirigotis, Peter <Tsirigotis.Peter@epa.gov>
Cc: Haman, Patricia <Haman.Patricia@epa.gov>
Subject: FYI- Sen. Wyden's staff considering a letter to EPA on Portland HAP issue

All,

Thank you again for getting on the phone yesterday on short notice for this evolving Portland, OR HAP situation. In a follow-up conversation I had with the staffer about the monitoring thread that came up on the call, he mentioned they are considering a thoughtful letter to EPA that might touch upon: helping the public understand what they may have been exposed to or what the levels mean, how to better monitor HAPs or stimulate innovation in that space, and how to reduce emissions from these types of facilities. If any of you had thoughts on what we have going on, planned, or would like to have going on in the future that might relate to these points, then I could provide appropriate thoughts or information to the staffer in advance that might help the letter be more helpful to our response. If there is any interest, we could chat further or I could try to join future discussions about this. Figured it was worth a heads up, either way.

Thanks,

Matthew

Matthew H. Davis

Air Team, Office of Congressional Affairs

Office of Congressional and Intergovernmental Relations

Office of the Administrator, U.S. EPA

1200 Pennsylvania Ave NW, MC 1301A

Washington, DC 20460

(202) 564-1267

To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Narvaez, Madonna
Sent: Mon 2/8/2016 5:29:45 PM
Subject: RE: Bullseye Call today - action items

Does this mean that I don't need to call Sarah?

From: McClintock, Katie
Sent: Saturday, February 06, 2016 9:48 AM
To: Franklin, Richard <Franklin.Richard@epa.gov>; Bray, Dave <Bray.Dave@epa.gov>; Narvaez, Madonna <Narvaez.Madonna@epa.gov>; Elleman, Robert <Elleman.Robert@epa.gov>; Koprowski, Paul <Koprowski.Paul@epa.gov>; Downey, Scott <Downey.Scott@epa.gov>; Dossett, Donald <Dossett.Donald@epa.gov>; Hedgpeth, Zach <Hedgpeth.Zach@epa.gov>; Wroble, Julie <Wroble.Julie@epa.gov>; Dagseth, Renee <Dagseth.Renee@epa.gov>; Leefers, Kristin <Leefers.Kristin@epa.gov>; Fairchild, Susan <Fairchild.Susan@epa.gov>
Subject: RE: Bullseye Call today - action items

Quick update:

I talked to Sarah Armitage late Friday. We discussed the potential for major chromium concerns and talked about getting speciated metals results. She said the monitors they used didn't pull particularly large samples and her (not expert in this subject) memory was that they needed bigger samples for speciation. She is going to look into it right away and will check into lead chromate speciated nickel as well.

In other news, I read that the soil samples came back positive for arsenic and cadmium (and other metals) but the air samples inside came back negative. <http://www.portlandmercury.com/http://www.portlandmercury.com/BlogtownPDX/archives/2016/02/04/soil-near-bullseye-glass-contains-arsenic-and-cadmiumand-other-things-officials-told-parents-thursday>

I was also reviewing the northrose lawn data from 2014 which was included with other data and shows over the benchmark for cadmium and arsenic (though much lower, 1.3 instead of 31.7 for arsenic as compared to the fred meyer parking lot). There are two glass plants up there including glass alchemy and we might need to look into that. There seem to be several shops manufacturing glass including Trautman, Northstar and Glass Alchemy. There are probably others as well, but that is as far as I have gotten. I don't know the relative size of the other 3 compared to bullseye, but I think bullseye is quite a bit larger. We should try to get our hands on all the rest of the sampling data besides the fred meyer parking lot. I think there is at least north rose lawn 2015 data. I forgot to ask Sarah about this when we talked.

I also heard there will be another public meeting on Tuesday at the high school. Someone should consider whether EPA presence would or would not be helpful there. Zach and I will be in the area and of course Richard Franklin and Paul Koprowski are down there too.

Katie

From: McClintock, Katie

Sent: Friday, February 05, 2016 2:00 PM

To: Bray, Dave <Bray.Dave@epa.gov>; Narvaez, Madonna <Narvaez.Madonna@epa.gov>; Elleman, Robert <Elleman.Robert@epa.gov>; Koprowski, Paul <Koprowski.Paul@epa.gov>; Downey, Scott <Downey.Scott@epa.gov>; Dossett, Donald <Dossett.Donald@epa.gov>; Hedgpeth, Zach <Hedgpeth.Zach@epa.gov>; Wroble, Julie <Wroble.Julie@epa.gov>; Franklin, Richard <Franklin.Richard@epa.gov>; Dagseth, Renee <Dagseth.Renee@epa.gov>; Leefers, Kristin <Leefers.Kristin@epa.gov>; Fairchild, Susan <Fairchild.Susan@epa.gov>

Cc: Islam, Mahbubul <Islam.Mahbubul@epa.gov>

Subject: Bullseye Call today - action items

Based on the call today, here are our action items:

1. Madonna will ask OR (maybe work with Paul Koprowski) if they did the work and what samples they ran.
 - a. Did they run speciated metals?
 - b. If not, did they save the filter and can they run lead chromate and hex chromium, speciated nickel
2. Include oaqps press on communications - Jan Cortelyou
3. Madonna will ask Greg Grunow about metals used data per metal - should be reporting into tri
4. Susan Fairchild - will look through CBI about data on Bullseye
5. Julie W. is sending EPA RSLs alongside DEQ benchmarks
6. Potential Inspection - look for how to test and look for dust at rail unloading. Find out if a chromium refractory.
7. Richard - Will keep us informed of OR emergency response actions regarding soil.
8. Spectrum -
 - a. Katie will look into source and talk to permit writer.
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To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Elleman, Robert
Sent: Mon 2/8/2016 5:00:32 PM
Subject: RE: Bullseye Call today - action items

Anthony Barnack at DEQ coordinated the monitoring, apparently. And if you need any interpretation of monitoring technique, Chris Hall in OEA would be a good resource.

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To: McClintock, Katie[McClintock.Katie@epa.gov]
From: Narvaez, Madonna
Sent: Fri 2/5/2016 10:59:37 PM
Subject: RE: Bullseye Call today - action items

Katie, I forgot to tell you. Greg Grunow and his boss David Monro inspected or visited the facility last Monday.

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